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**DATE:** May 11, 2004

**MATTER NUMBER:** 10109097

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Examiner Fozia M. Hamud	1571 273-0884	1571 272-0884
Art Unit 1647	1703 872-9306	
Commissioner for Patents		

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**RE:** U.S. Serial No. 10/026,106  
LUD 5752

**NUMBER OF PAGES WITH COVER PAGE:** 13

**Message:**

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LUD 5752 (10109097)**CERTIFICATE OF FACSIMILE TRANSMITTAL**

I hereby certify that this correspondence is being transmitted via FACSIMILE pursuant to 37 CFR 1.8 to Group 1647, Examiner Fozia M. Hamud of the Commissioner for Patent at (571) 273-0884 and (703) 872-9306 on May 11, 2004.

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(Name of Transmitter)

*Fani Malikouzakis*  
(Signature)

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Jean-Christophe RENAUD et al.

Group Art Unit: 1647

US Serial No.: 10/026,106

Examiner: Fozia M. HAMUD

Filing Date: December 21, 2001

For: ISOLATED CYTOKINE RECEPTOR LICR-2

**RESPONSE TO OFFICE ACTION**  
**(37 C.F.R. § 1.116)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is submitted in response to the Office action of March 9, 2004, as well as the telephonic interview of April 8, 2004.

No amendments to the claims or specification are presented, and none are believed necessary, based upon the office action and the interview.

Applicants do wish to thank Supervisory Examiner Kunz, and Examiner Hamud for the courtesies extended and time taken for the April 8, 2004 interview. This was very helpful in addressing the outstanding issues, specifically the combined lack of utility/enablement rejection of claims 1-12, 24, 25, and 29.

With respect to these rejections, applicants pointed out that Example 7, at pages 7-8, was designed to determine if LICR-2 was able to transduce a signal. Indeed, it was. As the specification shows, LICR-2 was able to facilitate the activation of STAT factors. This was accomplished by measuring luciferase activity. As page 8 states:

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"A luciferase reporter gene, which is controlled by a promoter that binds STAT transcription factors, was used to analyze the response to cytokines."

The use of such systems for measuring STAT activity, i.e., luciferase reporter assays, is well known. Please see, for example, Brennan, et al., *J. Biol. Chem.*, 276(2):1195-1203 (2001), a copy of which is attached, especially pages 1197, second column.

"Black letter law" states that a specification need not teach, and preferably leaves out, that which is known to the art. The Brennan paper teaches that the luciferase reporter system utilized, "has been shown to bind various STATs." In the inventors' own paper, i.e., Dumoutier, et al., *Biochem. J.*, 370:391-396 (2003), the construct used by Brennan, i.e., the luciferase reporter, is used. See page 392, second column. Figure 4, at page 394, and the accompanying text, indicate that STAT 1, 3, and 5 were recognized, and that these, as well as STAT2, were phosphorylated. Page 395, second column, reporter:

"Our results demonstrate that the IL-10R - LICR-2 chimeric molecule was able to transduce a signal, and caused phosphorylation, of STAT1, STAT2, STAT3, and STAT5."

The roles of each of these STAT molecules is well known. As such, applicants need not have, and did not continue experiments to show what the STAT molecules did, as this was already known. Nor was it necessary to describe a particular STAT as being activated, because the activation was generic and the activated molecules have a known function.

The argument made in the office action - which was not the position advanced during the interview - was that this activity was not sufficient because (i) other molecules activate STATs, and (ii) the biological activity of LICR2 is not shown.

In response, the fact that other molecules activate STAT factors is not relevant. "There's more than one way to skin a cat," and more than one way to get to a desired end. Using the Examiner's argument, there could only be one patent, e.g., treating diabetes, or isolating DNA, etc. With respect to the second argument, the activity stated, i.e., the ability to transmit a signal and to activate STAT factors, is a biological activity. As such, the arguments advanced by the Examiner are inapposite, and should be withdrawn.

With respect to the rejections of claim 29 for lacking written description and enablement, this is based upon a clear misunderstanding of what is claimed.

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Claim 29 recites oligonucleotides. These are described as being useful as probes. See, e.g., page 11 of the specification. Nowhere is it asserted that these oligonucleotides may be used to make polypeptides. While this is a possibility, the asserted utility is as oligonucleotides. Only one such utility is required, and the Examiner has not provided any evidence to contradict the possibility of the subject matter of claim 29 being so used.

Further, since the complete sequences of SEQ ID NOS: 7 and 9, as recited in claim 29 are given, and both are much longer than 100 nucleotides, it is not seen how one of ordinary skill in the art could not envisage the claimed subject matter. That is all the written description requirement requires.

In view of the foregoing, withdrawal of the rejections, and allowance of all claims are believed proper, and are urged.

Respectfully submitted,



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Attachment: Brennan et al.